**Models of the Universe**

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| Criterion | Strands |
| A – One World | Explain ways in which science is applied and used to address a specific problem or issue |
| Discuss the effectiveness of science and its application in solving the problem or issue |

Choose one of the following tasks and then answer the question:

1. In groups create models of how Ptolemy and Galileo viewed the universe. Then on your own write a summary explaining each model and include the following questions in your summary
   1. How do you think their philosophical beliefs affected their models of the universe?
   2. What observations or innovations led to the development of their models?
2. Write a short role-play in which Ptolemy and Galileo discuss their ideas. How would they support their version of the universe to each other?

Describe what you think the people of the time would have thought about the shift in thinking from the geocentric model of the universe to the heliocentric model of the universe.

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| Criterion A – One World | | |
| Achievement Level | Descriptor | Task Specific |
| 0 | The student does not reach a standard described by any of the descriptors below. | You do not reach a standard described by any of the descriptors below. |
| 1-2 | The student briefly states how science is applied and used to address a specific problem or issue in a local or global context. The student makes some limited comments on the effectiveness of science and its application in solving the problem or issue. | You are able to recall both models of the universe and briefly describe them. You make some limited comments on how these two scientists understood the universe and what observations led them to their understanding. |
| 3-4 | The student makes comments on the ways in which science is applied and used to address a specific problem or issue in a local or global context. The student makes some comments on the effectiveness of science and its application in solving the problem or issue. The student makes comments on how science and its application of interact with life, society and the world. | You are able to recall both models of the universe and explain them. You are able to make some comments on how these two scientists understood the universe and what observations led them to their understanding. You make limited comment on how the people of the time viewed the shift from the heliocentric to the geocentric model of the universe. |
| 5-6 | The student gives examples and makes comments on the ways in which science is applied and used to address a specific problem or issue in a local or global context. The student makes comments on the effectiveness of science and its application in solving the problem or issue. The student makes comments on how science and its application interact with life, society and the world. | You are able to recall both models of the universe and explain them in depth. You are able to make sensible comments on how these two scientists’ understood the universe and what observations led them to their understanding. You make comments on how the people of the time viewed the shift from the heliocentric to the geocentric model of the universe. |